

This listing of claims will replace all prior versions, and listings of claims in the subject patent application as follows:

Listing of Claims:

1. (PREVIOUSLY AMENDED) A playback system for reproducing audio data and reading acoustic control data from a recording medium, said acoustic control data including information related to the characteristics of the original acoustic environment associated with the production of said recording media, comprising:

- a demultiplexer for retrieving audio data and acoustic control data,
- said acoustic control data providing a predetermined number N of inputs to
- gain and phase circuits,
- delay and reverberation circuits,
- equalizer circuits, and
- gain/attenuation circuits,
- said gain/attenuation circuits connected to output to a second predetermined

number M of summation channels,

- said audio data feeding serially through said
- gain and phase circuits,
- delay and reverberation circuits, and
- equalizer circuits;

wherein the operation of said gain and phase circuits, said delay and reverberation circuits and said equalizer circuits is adjusted in accordance with said acoustic control data to replay said audio data by recreating said original acoustic environment.

2. (PREVIOUSLY AMENDED) The playback system for reproducing audio data and reading acoustic control data of claim 1 wherein said audio signals are replayed at a listener site, further comprising a listener input circuit connected to provide signals, said listener input signals providing information indicative of the local characteristics of the listener site.

3. (PREVIOUSLY AMENDED) The playback system for reproducing audio data and reading acoustic control data of claim 1 further comprising a player type register providing a signal indicative of parameters of the recording medium to said gain and phase circuits, delay and reverberation circuits, and equalizer circuits to provide information indicative of the characteristics of a player for the media, a player type register providing a signal indicative of parameters of the recording medium to said gain and phase circuits, delay and reverberation circuits, and equalizer circuits to provide information indicative of the characteristics of a player for said recording medium.

4. (PREVIOUSLY AMENDED) The playback system for reproducing audio data and reading acoustic control data of claim 2 further comprising a player type register providing a signal indicative of parameters of the recording medium to said gain and phase circuits, delay and reverberation circuits, and equalizer circuits to provide information indicative of the characteristics of a player for said recording medium.

5. (ORIGINAL) The playback system for reproducing audio data and reading acoustic control data of claim 3 wherein said player type register is adapted to provide information to active noise cancellation apparatus.

6. (ORIGINAL) The playback system for reproducing audio data and reading acoustic control data of claim 4 wherein said player type register is adapted to provide information to active noise cancellation apparatus.

7. (ORIGINAL) The playback system for reproducing audio data and reading acoustic control data of claim 1, further comprising ,

a loop closing subsystem interfaced to said playback system comprising
a programmable delay,
a second generator for test signals,
precision microphones to receive returned information from said test signals,
connections to provide parameter corrections to parameters of said playback system.

8. (ORIGINAL) The playback system for reproducing audio data and reading acoustic control data of claim 2, further comprising ,

a loop closing subsystem interfaced to said playback system comprising
a programmable delay,
a second generator for test signals,
precision microphones to receive returned information from said test signals,
connections to provide parameter corrections to parameters of said playback system.

9. (ORIGINAL) The playback system for reproducing audio data and reading acoustic control data of claim 3, further comprising ,

a loop closing subsystem interfaced to said playback system comprising
a programmable delay,
a second generator for test signals,
precision microphones to receive returned information from said test signals,
connections to provide parameter corrections to parameters of said playback system.

10. (ORIGINAL) The playback system for reproducing audio data and reading acoustic control data of claim 4, further comprising ,

a loop closing subsystem interfaced to said playback system comprising
a programmable delay,
a second generator for test signals,
precision microphones to receive returned information from said test signals,
connections to provide parameter corrections to parameters of said playback system.

11. (ORIGINAL) The playback system for reproducing audio data and reading acoustic control data of claim 5, further comprising ,

a loop closing subsystem interfaced to said playback system comprising
a programmable delay,
a second generator for test signals,
precision microphones to receive returned information from said test signals,
connections to provide parameter corrections to parameters of said playback system.

12. (ORIGINAL) The playback system for reproducing audio data and reading acoustic control data of claim 6, further comprising,

a loop closing subsystem interfaced to said playback system comprising
a programmable delay,
a second generator for test signals,
precision microphones to receive returned information from said test signals,
connections to provide parameter corrections to parameters of said playback system.

13. (ORIGINAL) The playback system for reproducing audio data and reading acoustic control data of claim 1, wherein said playback system further comprises a metadata display system.

14. (ORIGINAL) The playback system for reproducing audio data and reading acoustic control data of claim 7, wherein said playback system further comprises a metadata display system.

15-17. (CANCELLED)

18-20. (PREVIOUSLY CANCELLED)

21-38. (CANCELLED)